

STEM PROGRAM AMENDMENTS

2016 GENERAL SESSION

STATE OF UTAH

LONG TITLE**General Description:**

This bill modifies provisions related to the STEM (Science, Technology, Engineering, and Mathematics) Action Center.

Highlighted Provisions:

This bill:

- ▶ defines terms;
- ▶ modifies:
 - the membership and duties of the STEM Action Center Board;
 - the duties of the director of the STEM Action Center; and
 - the rulemaking authority of the State Board of Education related to the award of STEM education endorsement incentives;
- ▶ adds Utah State University Eastern to the list of educational institutions that may partner with a school district or charter school to provide a STEM related certification program; and
- ▶ makes technical changes.

Money Appropriated in this Bill:

None

Other Special Clauses:

None

Utah Code Sections Affected:

AMENDS:

63N-12-203, as renumbered and amended by Laws of Utah 2015, Chapter 283

63N-12-204, as renumbered and amended by Laws of Utah 2015, Chapter 283

63N-12-205, as renumbered and amended by Laws of Utah 2015, Chapter 283

63N-12-209, as last amended by Laws of Utah 2015, Chapter 258 and renumbered and amended by Laws of Utah 2015, Chapter 283

63N-12-210, as renumbered and amended by Laws of Utah 2015, Chapter 283

33 **63N-12-212**, as renumbered and amended by Laws of Utah 2015, Chapter 283

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35 *Be it enacted by the Legislature of the state of Utah:*

36 Section 1. Section **63N-12-203** is amended to read:

37 **63N-12-203. STEM Action Center Board creation -- Membership.**

38 (1) There is created the STEM Action Center Board within the office, composed of the
39 following members:

40 (a) six private sector members who represent business, appointed by the governor;

41 (b) the state superintendent of public instruction or the state superintendent of public
42 instruction's designee;

43 (c) the commissioner of higher education or the commissioner of higher education's
44 designee;

45 (d) one member appointed by the governor;

46 (e) a member of the State Board of Education, chosen by the chair of the State Board of
47 Education;

48 (f) the executive director of the office or the executive director's designee;

49 (g) the president of the Utah College of Applied Technology or the president of the
50 Utah College of Applied Technology's designee; ~~[and]~~

51 (h) the executive director of the Department of Workforce Services or the executive
52 director of the Department of Workforce Services' designee; and

53 ~~[(h)]~~ (i) one member who has a degree in engineering and experience working in a
54 government military installation, appointed by the governor.

55 (2) (a) The private sector members appointed by the governor in Subsection (1)(a) shall
56 represent a business or trade association whose primary focus is science, technology, or
57 engineering.

58 (b) Except as required by Subsection (2)(c), members appointed by the governor shall
59 be appointed to four-year terms.

60 (c) The length of terms of the members shall be staggered so that approximately half of
61 the committee is appointed every two years.

62 (d) The members may not serve more than two full consecutive terms except where the
63 governor determines that an additional term is in the best interest of the state.

(e) When a vacancy occurs in the membership for any reason, the replacement shall be appointed for the unexpired term.

(3) Attendance of a simple majority of the members constitutes a quorum for the transaction of official committee business.

(4) Formal action by the committee requires a majority vote of a quorum.

(5) A member may not receive compensation or benefits for the member's service, but may receive per diem and travel expenses in accordance with:

(a) Section 63A-3-106;

(b) Section 63A-3-107; and

(c) rules made by the Division of Finance under Sections 63A-3-106 and 63A-3-107.

(6) The governor shall select the chair of the board to serve a [~~one-year~~] two-year term.

(7) The executive director of the office or the executive director's designee shall serve as the vice chair of the board.

Section 2. Section **63N-12-204** is amended to read:

63N-12-204. STEM Action Center Board -- Duties.

(1) The board shall:

(a) establish a STEM Action Center to:

(i) coordinate STEM activities in the state among the following stakeholders:

(A) the State Board of Education;

(B) school districts and charter schools;

(C) the State Board of Regents;

(D) institutions of higher education;

(E) parents of home-schooled students; ~~and~~

(F) other state agencies; and

(G) business and industry representatives;

(ii) align public education STEM activities with higher education STEM activities; and

(iii) create and coordinate best practices among public education and higher education;

(b) with the consent of the Senate, appoint a director to oversee the administration of the STEM Action Center;

(c) select a physical location for the STEM Action Center;

(d) strategically engage industry and business entities to cooperate with the board:

(i) to support high quality professional development and provide other assistance for educators and students; and

(ii) to provide private funding and support for the STEM Action Center;

(e) give direction to the STEM Action Center and the providers selected through a request for proposals process pursuant to this part; and

(f) work to meet the following expectations:

(i) that at least 50 educators are implementing best practice learning tools in classrooms ~~[per each product specialist or manager working with the STEM Action Center];~~

(ii) performance change in student achievement in each classroom ~~[working with]~~ participating in a STEM Action Center ~~[product specialist or manager]~~ project; and

(iii) that students from at least 50 ~~[high]~~ schools in the state participate in the STEM competitions, fairs, and camps described in Subsection 63N-12-205(2)(d).

(2) The board may:

(a) enter into contracts for the purposes of this part;

(b) apply for, receive, and disburse funds, contributions, or grants from any source for the purposes set forth in this part;

(c) employ, compensate, and prescribe the duties and powers of individuals necessary to execute the duties and powers of the board;

(d) prescribe the duties and powers of the STEM Action Center providers; and

(e) in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, make rules to administer this part.

(3) The board may establish a foundation to assist in:

(a) the development and implementation of the programs authorized under this part to promote STEM education; and

(b) implementation of other STEM education objectives described in this part.

(4) A foundation established by the board under Subsection (3):

(a) may solicit and receive contributions from a private organization for STEM education objectives described in this part;

(b) shall comply with Title 51, Chapter 7, State Money Management Act;

(c) does not have power or authority to incur contractual obligations or liabilities that constitute a claim against public funds;

(d) may not exercise executive or administrative authority over the programs or other activities described in this part, except to the extent specifically authorized by the board;

(e) shall provide the board with information detailing transactions and balances of funds managed for the board; and

(f) may not:

(i) engage in lobbying activities;

(ii) attempt to influence legislation; or

(iii) participate in any campaign activity for or against:

(A) a political candidate; or

(B) an initiative, referendum, proposed constitutional amendment, bond, or any other ballot proposition submitted to the voters.

(5) Money donated to a foundation established under Subsection (3) may be accounted for in an expendable special revenue fund.

Section 3. Section **63N-12-205** is amended to read:

63N-12-205. STEM Action Center.

(1) As funding allows, the board shall:

(a) establish a STEM Action Center;

(b) ensure that the STEM Action Center:

(i) is accessible by the public; and

(ii) includes the components described in Subsection (2);

(c) work cooperatively with the State Board of Education to:

(i) further STEM education; and

(ii) ensure best practices are implemented as described in Sections 63N-12-206 and 63N-12-207; ~~and~~

(d) engage private entities to provide financial support or employee time for STEM activities in schools in addition to what is currently provided by private entities~~[-]; and~~

(e) work cooperatively with stakeholders to support and promote activities that align STEM education and training activities with the employment needs of business and industry in the state.

(2) As funding allows, the director of the STEM Action Center shall:

(a) support high quality professional development for educators regarding STEM

157 education;

158 (b) ensure that the STEM Action Center acts as a research and development center for

159 STEM education through a request for proposals process described in Section 63N-12-206;

160 (c) review and acquire STEM education related materials and products for:

161 (i) high quality professional development;

162 (ii) assessment, data collection, analysis, and reporting; and

163 (iii) public school instruction;

164 (d) facilitate participation in interscholastic STEM related competitions, fairs, camps,

165 and STEM education activities;

166 (e) engage private industry in the development and maintenance of the STEM Action

167 Center and STEM Action Center projects;

168 (f) use resources to bring the latest STEM education learning tools into public

169 education classrooms;

170 (g) identify at least 10 best practice innovations used in Utah that have resulted in [at

171 ~~least 80% of students performing at grade level~~] a measurable improvement in student

172 performance or outcomes in STEM areas;

173 (h) identify best practices being used outside the state and, as appropriate, develop and

174 implement selected practices through a pilot program;

175 (i) identify:

176 (i) learning tools for kindergarten through grade 6 identified as best practices; and

177 (ii) learning tools for grades 7 through 12 identified as best practices;

178 (j) [~~provide a~~] collect data on Utah best practices [~~database~~], including best practices

179 from public education, higher education, the Utah Education and Telehealth Network, and

180 other STEM related entities;

181 (k) keep track of the following items related to [~~the~~] best practices [~~database~~] described

182 in Subsection (2)(j):

183 (i) how the best practices [~~database is~~] data are being used; and

184 (ii) how many individuals are using the [~~database~~] data, including the demographics of

185 the users, if available;

186 (l) as appropriate, join and participate in a national STEM network;

187 [~~(m) identify performance changes linked to use of the best practices database~~]

described in Subsection (2)(j);]

~~[(n)]~~ (m) work cooperatively with the State Board of Education to designate schools as STEM schools, where the schools have agreed to adopt a plan of STEM implementation in alignment with criteria set by the State Board of Education and the board;

~~[(o)]~~ (n) support best methods of high quality professional development for STEM education in kindergarten through grade 12, including methods of high quality professional development that reduce cost and increase effectiveness, to help educators learn how to most effectively implement best practice learning tools in classrooms;

~~[(p)]~~ (o) recognize ~~[a high school's]~~ achievement in the STEM competitions, fairs, and camps described in Subsection (2)(d);

~~[(q)]~~ (p) send student results from STEM competitions, fairs, and camps described in Subsection (2)(d) to media and ask the media to report on them;

~~[(r)]~~ (q) develop and distribute STEM information to parents of students ~~[being served by the STEM Action Center]~~ in the state;

~~[(s)]~~ (r) support targeted high quality professional development for improved instruction in STEM education, including:

(i) improved instructional materials that are dynamic and engaging for students;

(ii) use of applied instruction; and

(iii) introduction of other research-based methods that support student achievement in STEM areas; and

~~[(t)]~~ (s) ensure that an online college readiness assessment tool be accessible by:

(i) public education students; and

(ii) higher education students.

(3) The board may prescribe other duties for the STEM Action Center in addition to the responsibilities described in this section.

(4) (a) The director shall work with an independent evaluator to track and compare the student performance of students participating in a STEM Action Center program to all other similarly situated students in the state, if appropriate, in the following ~~[STEM-related]~~ activities~~[-, at the beginning and end of each year]~~:

(i) public education high school graduation rates;

(ii) the number of students taking a remedial mathematics course at an institution of

219 higher education described in Section 53B-2-101;

220 (iii) the number of students who graduate from a Utah public school and begin a
221 postsecondary education program; and

222 (iv) the number of students, as compared to all similarly situated students, who are
223 performing at grade level in STEM classes.

224 (b) The State Board of Education and the State Board of Regents shall provide
225 information to the board to assist the board in complying with the requirements of Subsection
226 (4)(a) if allowed under federal law.

227 Section 4. Section **63N-12-209** is amended to read:

228 **63N-12-209. STEM education endorsements and incentive program.**

229 (1) The State Board of Education shall collaborate with the STEM Action Center to:

230 (a) develop STEM education endorsements; and

231 (b) create and implement financial incentives for:

232 (i) an educator to earn an elementary or secondary STEM education endorsement
233 described in Subsection (1)(a); and

234 (ii) a school district or a charter school to have STEM endorsed educators on staff.

235 (2) In accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, the
236 State Board of Education shall make rules ~~[to establish how a]~~ establishing the uses of STEM
237 education ~~[endorsement]~~ endorsements described in Subsection (1) ~~[will be valued on a salary~~
238 ~~scale for educators.], including that:~~

239 (a) an incentive for an educator to take a course leading to a STEM education
240 endorsement may only be given for a course that carries higher-education credit; and

241 (b) a school district or a charter school may consider a STEM education endorsement
242 as part of an educator's salary schedule.

243 Section 5. Section **63N-12-210** is amended to read:

244 **63N-12-210. Acquisition of STEM education high quality professional**
245 **development.**

246 (1) The STEM Action Center shall, through a request for proposals process, select
247 technology providers for the purpose of providing a STEM education high quality professional
248 development application.

249 (2) The high quality professional development application described in Subsection (1)

250 shall:

251 (a) allow the State Board of Education, a school district, or a school to define the
252 application's input and track results of the high quality professional development;

253 (b) allow educators to access automatic tools, resources, and strategies, including
254 instructional materials with integrated STEM content;

255 (c) allow educators to work in online learning communities, including giving and
256 receiving feedback via uploaded video;

257 (d) track and report data on the usage of the components of the application's system
258 and the relationship to improvement in classroom instruction;

259 (e) include video examples of highly effective STEM education teaching that:

260 (i) cover a cross section of grade levels and subjects;

261 (ii) under the direction of the State Board of Education, include videos of highly
262 effective Utah STEM educators; and

263 (iii) contain tools to help educators implement what they have learned; and

264 (f) allow for additional STEM education video content to be added.

265 (3) In addition to the high quality professional development application described in
266 Subsections (1) and (2), the STEM Action Center may create STEM education hybrid or
267 blended high quality professional development that allows for face-to-face applied learning.

268 Section 6. Section **63N-12-212** is amended to read:

269 **63N-12-212. High school STEM education initiative.**

270 (1) Subject to legislative appropriations, after consulting with State Board of Education
271 staff, the STEM Action Center shall award grants to school districts and charter schools to fund
272 STEM related certification for high school students.

273 (2) (a) A school district or charter school may apply for a grant from the STEM Action
274 Center, through a competitive process, to fund the school district's or charter school's STEM
275 related certification training program.

276 (b) A school district's or charter school's STEM related certification training program
277 shall:

278 (i) prepare high school students to be job ready for available STEM related positions of
279 employment; and

280 (ii) when a student completes the program, result in the student gaining [~~a nationally~~]

281 an industry-recognized employer STEM related certification.
282 (3) A school district or charter school may partner with one or more of the following to
283 provide a STEM related certification program:
284 (a) a Utah College of Applied Technology college campus;
285 (b) Salt Lake Community College;
286 (c) Snow College; [~~or~~]
287 (d) Utah State University Eastern; or
288 [~~(d)~~] (e) a private sector employer.